

ABSTRACT OF THE DISCLOSURE

A soft starter system for monitoring and diagnosing electrical power system characteristics comprises a motor controller including solid state switches for controlling application of power to a motor. A control circuit controls operation of the solid state switches.

- 5 The control circuit comprises a programmed processor for commanding operation of the solid state switches and for measuring electrical power system characteristics relating to operation of the solid state switches. A memory is connected to the programmed processor storing parameters of the measured electrical power system characteristics. An external monitoring and diagnostic device includes a memory for storing parameters of the measured electrical power system
- 10 characteristics and an interface for communication with the motor controller. A monitoring and diagnostic program is operatively implemented in the external monitoring and diagnostic device for transferring parameters of the measured electrical power system characteristics from the control circuit to the external monitoring and diagnostic device to monitor electrical power system characteristics in real time.